

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A data output ~~device~~ system for rendering ~~output~~ digital content, ~~the data output system including~~ managed from

~~an mobile~~ information apparatus with access to at least part of the digital content over a network that includes the Internet, and

an output device for rendering the digital content, the mobile information apparatus being physically connected directly to ~~distinct and separate from the output device, the direct structural connection between the information apparatus and the output device not including a network,~~ the output ~~device~~ system further comprising:

a rendering engine that outputs digital content in accordance with an output data acceptable to the ~~output device~~ output engine; and

memory storage that stores at least part of one or more ~~output device~~ document objects as encapsulations or reference ~~with one or more device dependent attributes corresponding specifically to the output device~~ the digital content;

the output ~~device~~ system having,

means for providing from the output system wirelessly at least part of the an output device object that includes a security information to the ~~information apparatus~~ one or more servers over the network that includes the Internet,

means for providing from the output system a document object that includes at least part of the digital content, a reference to the digital content, or a pointer to the digital content, individually or in any combination, to one or more servers over the network that includes the Internet, and

means for receiving output data the digital content from the network information apparatus at the output system for rendering in response to providing

from the output system the document object to one or more servers over the network that includes the Internet, the output data related to the output digital content corresponding to the said document object sent from the output system over the network that includes the Internet, and

means for delivering an output data related to the digital content for rendering of the digital content by the output engine managed from the information apparatus and in a form at least compatible with the one or more attributes acceptable to the output device.

2. (Currently amended) The output device system of claim 1 further comprising means for storing at the memory storage included in the output system the one or more output device objects that include the security information with one or more attributes corresponding to the one or more output devices.

3. (Currently amended) The output device system of claim 1 further comprising ~~means for receiving plural service requests from plural information apparatuses, the output device providing the at least part of the output device object to each of the plural information apparatuses~~ including a wireless communication unit for wireless communication, and the output system further comprising means for opening a wireless communication channel with the wireless communication unit for accessing the one or more servers via the wireless communication channel and over the network that includes the Internet.

4. (Currently amended) The output device system of claim 1 in which the output device includes an audio output device.

5. (Currently amended) The output device system of claim 1 ~~in which the at least part of the output device object is provided to the information apparatus in response to a service request received from the information apparatus~~ further

comprising providing from the output system to the one or more servers one or more of an authentication information, quality of service information, priority information, and subscription service information, individually or in any combination thereof.

6. (Currently amended) The output device system of claim 1 further ~~includes~~ comprising means for providing the at least part of the output device object to the ~~information apparatus~~ one or more servers as unsolicited information without a request therefor from the ~~information apparatus~~ one or more servers.

7. (Currently amended) The output device system of claim 1 ~~in which the at least part of the output device object is provided to the information apparatus in more than one communication session with the information apparatus~~ further comprising means for sending from the output system a composite message, that includes at least one object, to the one or more servers over the Internet.

8. (Currently amended) The output device system of claim 1 further ~~includes~~ comprising means for implementing sending from the output system payment or subscription information to one or more servers over the Internet processing as compensation for rendering of the output content on the output device.

9. (Currently amended) The output device system of claim 1 further ~~includes~~ comprising means for implementing at the output system job management functionalities with one or more of data output job queuing and spooling for rendering one or more digital content received by the output system.

10. (Currently amended) The output ~~device~~ system of claim 1 further ~~includes~~ comprising means for providing a user interface for receiving user-implemented modifications of the output ~~device~~ system.

11. (Currently amended) The output ~~device~~ system of claim 1 further ~~includes~~ comprising means for implementing at the output system a security procedure that limits access to the rendering of the digital content ~~provided by~~ at the selected output ~~device~~ system.

12. (Currently amended) The output ~~device~~ system of claim 11 in which the security procedure includes storing in a memory component an access control list specifying information related to an information apparatus or a user, individually or in any combination, ~~for which the selected output device will render output content.~~

13. (Currently amended) The output ~~device~~ system of claim 11 in which the security procedure includes one or more of a subscription indicator, a login, a password, and an authentication, individually or in any combination.

14. (Currently amended) The output ~~device~~ system of claim 1 further comprising an output controller with means for communicating with the information apparatus.

15. (Currently amended) The output ~~device~~ system of claim 14 1 further comprising an in-which the output controller that is separate externally connected to from the output device.

16. (Currently amended) The output ~~device~~ system of claim 14 1 further comprising an in-which the output controller, the output controller further includes

including means for converting the ~~output data~~ digital content into a form acceptable to a printer controller.

17. (Currently amended) The output ~~device~~ system of claim 44 ~~1~~ further comprising an output controller, in which the output controller further including means for converting the ~~output data~~ digital content into a form compatible with an output engine.

18. (Currently amended) The output ~~device~~ system of claim 1 in which the output data received by the output ~~device~~ engine includes device dependent data acceptable to the output engine.

19. (Currently amended) The output ~~device~~ system of claim 1 ~~further includes means for converting the output data content into a form compatible with the output engine~~ in which the output device includes a television.

20. (Currently amended) The output ~~device~~ system of claim 1 in which the output device includes one of a display device or a projection device.

21. (Currently amended) The output ~~device~~ system of claim 1 in which the output device further includes means for performing at least partial raster image processing operations on the output data.

22. (Currently amended) The output ~~device~~ system of claim 21 in which the image processing operation includes one or more of an interpretation operation, a conversion operation, a rasterization operation, a scaling operation, a segmentation operation, color space transform operation, an image enhancement operation, a color correction operation, a halftoning operation, a compression operation, and an encryption operation, individually or in any combination.

23. (Currently amended) The output ~~device~~ system of claim 1 in which the output device includes a printer.

24. (Currently amended) The output ~~device~~ system of claim 1 ~~in which the output data includes device dependent data in relation to the output device~~ further including an interface with a touch sensitive display screen for interacting with a user.

25. (Currently amended) The output ~~device~~ system of claim 1 in which the output medium is one or more of a substrate, a paper, a display screen, and a projection, individually or in any combination.

26. (Currently amended) In an data output device system for rendering output digital content, the output system including, managed with
an mobile information apparatus with access to at least part of the digital content,

an output device for rendering the digital content, the mobile information apparatus being physically connected directly to distinct and separate from the output device, the direct structural connection between the information apparatus and the output device not including a network, the data output device including

a rendering engine that outputs the digital content on a medium in accordance with an output data received at the output device engine, and

a memory storage that stores data for rendering; the improvement in the output system comprising:

the information apparatus included in the output system with access to at least part of the digital content over a network that includes the Internet, the information apparatus having,

means for providing from the output system a document object that includes at least part of the digital content, a reference to the digital content, or a

pointer to the digital content, individually or in any combination, to one or more servers over the network that includes the Internet, and

means for receiving the digital content from the network at the output system in response to sending the said document object from the output system to the one or more servers over the network that includes the Internet, the digital content corresponding to the said document object sent from the output system;
and

an output controller included in the output system having means for wirelessly providing to the information apparatus at least part of an output device object as an encapsulation having one or more device dependent attributes corresponding specifically to the output device,

means for receiving output data related to the output the digital content managed from the information apparatus,

means for generating the output data corresponding to the digital content being in a form at least compatible with the one or more attributes and means for passing the output data to the output engine included in the output system, and

means for passing the output data to the output engine for rendering of the output content at the output device.

27. (Currently amended) The output ~~device~~ system of claim 26 in which the output data received at the output ~~device~~ system is from a network.

28. (Currently amended) The output ~~device~~ system of claim 26 further including an interface with a touch sensitive screen for interacting with a user in which the output data received at the output device is from the information apparatus.

29. (Currently amended) The output ~~device~~ system of claim 26 in which the output data includes device dependent data in relation to the output device.

30. (Currently amended) The output device system of claim 26 in which the output medium is one or more of a substrate, a paper, a display screen, and a projection, individually or in any combination.

31. (Currently amended) The output device system of claim 26 ~~in which the output controller further comprises means for storing one or more output device objects with one or more attributes corresponding to the one or more output devices~~ further comprising means for providing from the output system at least part of an output device object that includes a security information to one or more servers over the network that includes the Internet.

32. (Currently amended) The output device system of claim 26 further ~~comprising means for receiving plural service requests from plural information apparatuses, the output controller providing the at least part of the output device object to each of the plural information apparatuses~~ including a wireless communication unit for wireless communication, and the output system further comprising means for opening a wireless communication channel with the wireless communication unit for accessing the one or more servers over the wireless communication channel to the network that includes the Internet.

33. (Currently amended) The output device system of claim 26 in which the output device includes a printer.

34. (Currently amended) The output device system of claim 26 further comprising means for sending from the output system payment or subscription information to the one or more servers over the network that includes the Internet ~~in which the output controller further includes means for implementing payment processing as compensation for rendering of the output content on the output device.~~

35. (Currently amended) The output device system of claim 26 in which the output controller system further includes means for implementing job management functionalities with one or more of data output job queuing and spooling for rendering one or more digital content received by the output system.

36. (Currently amended) The output device system of claim 26 in which the output controller further includes means for providing a user interface for receiving user-implemented modifications of the controller.

37. (Currently amended) The output device system of claim 26 in which the output controller further includes means for implementing a security procedure that limits access to the rendering provided by the ~~selected~~ output device.

38. (Currently amended) The output device system of claim 26 in which the output controller is included in the output device.

39. (Currently amended) The output device system of claim 26 in which the output controller is separate from the output device.

40. (Currently amended) The output device system of claim 26 in which the output controller further includes means for converting the ~~output data~~ digital content into a form compatible with the output engine.

41. (Currently amended) The output device system of claim 26 in which the output controller further includes means for performing at least partially, raster image processing operations on the output data.

42. (Currently amended) In an data output device system for rendering output digital content, the output system including, managed with

an mobile information apparatus with access to at least part of the digital content,

an interface with a touch sensitive display screen for interacting with a user,

an output device for rendering the digital content, the mobile information apparatus being physically connected directly to distinct and separate from the output device, the direct structural connection between the information apparatus and the output device not including a network, the data output system device further including,

a rendering engine that outputs on a medium in accordance with an output data received at the output device engine,

a wireless communication unit for wireless communication, and

a memory storage that stores data for rendering; the improvement in the output system comprising:

means for opening a wireless communication channel with the wireless communication unit;

means for providing from the output system a document object that includes at least part of the digital content, a reference to the digital content, or a pointer to the digital content, individually or in any combination, to the one or more servers via the wireless communication channel and over a network that includes the Internet;

means for wirelessly providing to the information apparatus at least part of an output device object encapsulating one or more attributes corresponding specifically to the output device,

means for receiving at the output system at least part of the digital content from the network via the wireless communication channel in response to providing from the output system the document object to the one or more servers over the network that includes the Internet, the digital content-output data being related to the said document object sent from the output system over the network that include the Internet; content managed from the information apparatus, the

~~output data being in a form at least compatible with the one or more attributes,~~
and

means for ~~sending the output data to the output engine for rendering of~~
the output received digital content by the output engine at the output system.